DOCUMENT RESUME

ED 351 058 JC 920 535

AUTHOR	Watson, Claude M.
TITLE	Interactive Classroom Management/Extension through the Use of Computers.
INSTITUTION	Lansing Community Coll., Mich.
PUB DATE	25 Jan 92
NOTE	6p.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Classroom Techniques; Community Colleges; *Computer Assisted Instruction; *Computer Literacy; Computer Software; *Computer Uses in Education; Course Content; Desktop Publishing; Electronic Mail; Teleconferencing; Two Year Colleges; Word Processing
IDENTIFIERS	Lansing Community College MI

ABSTRACT

The staff of the Mathematics and Computer Science Department at Lansing Community College (LCC), in Michigan, has developed a unique combination of techniques for course support. These techniques have been incorporated into an 11-week course, "Introduction to Computers," which meets for 4 hours of lecture each week, and provides hands-on experience in the computer laboratory using popular computer applications, involving operating systems, word processing, and desktop publishing. The computer laboratory has helped both students and faculty who lack experience with computers to gain valuable skills and confidence. One of the more popular assignments in the course unit on communications uses an electronic bulletin board system. Students produce written introductions of themselves, vote on discussion topics, and undertake conferencing entirely through electronic mail. Another valuable course exercise is the term paper, which is written in four stages, and which makes extensive use of the desk-top publishing program for title page development, bibliographic references, and text design. Students are given access to the computer as members of a class group. All files are stored on a central file server. While the instructor has access to all student files at all times, students cannot access each other's accounts but can access a common collection of files referred to as the "class library." The structure of the system allows the instructor to post messages for the students, to quickly assess how often students have accessed their files (to chart student progress), and to collect and correct course assignments electronically. The techniques and tools used in the course can be applied to other subjects as well. (PAA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED351058

Interactive Classroom Management/Extension Through the Use of Computers

Claude M. Watson

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. M. Watson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Lansing Community College
Michigan

January 25, 1992

JC 920 535

BEST COPY AVAILABLE

Interactive Classroom Management/Extension Through The Use of Computers

Claude M. Watson
Lansing Community College

January 25, 1992

Introduction:

Lansing Community College has a long history of encouragement and support for the improvement of teaching. Likewise, the College has consistently brought together technical and teaching staff with supporting equipment, particularly computers, to focus on adapting changing technology for the benefit of teachers and students.

Computer Science is taught in the Mathematics and Computer Science Department of the Arts and Sciences Division. The staff in this department have developed a unique combination of techniques for course support. These techniques and their benefits need to be shared with other teachers.

Benefits of using computers in teaching:

Key benefits to teachers have been the improvement of detailed and timely assessment of student progress. Information is provided to students independent of class attendance. Student needs are identified and assistance is provided on an individual basis.

Some of the benefits to students include improved communication in getting from and giving information to the instructor, and the opportunity for the student to observe the instructor make corrections, changes, or demonstrate how to do assigned tasks directly on the student's work without permanent changes being made. Student morale and enthusiasm have been improved regarding tasks that students have previously considered tedious. The use of technology (and other fields) to study technology gives students a different understanding of the concepts involved.

What You Need

Equipment and expertise are readily available in many educational institutions, or will be in the near future, to implement the elements that have provided improved instruction at Lansing Community College. The main requirement is to have computers that are networked with central file storage such as a file server. Some technical staff with knowledge of the capabilities of the available computer resources and the capability to determine the need for additional equipemt is necessary in order to take full advantage of all of the suggestions contained here.

How to overcome fear of technology in the classroom:

An *Introduction to Computers* course is taught by the Math and Computer Science Department. The majority of students beginning these classes claim minimal experience with computing, and many have a real fear of computers. Hands-on experience in the computer laboratory, using popular computer applications in the environment we have provided, produces the desired behavior change in both students and in faculty who lack experience with computers. Examination of this course and the methods of presenting it will graphically illustrate these points.

The course, Introduction to Computers (CPS100), uses the text book, *The Mind Tool*, by Graham and a course packet written by staff. The eleven-week class meets for four hours of lecture each week. The computer laboratory is open from 8:00 AM to 10:00 PM and is used as needed by the students. The laboratory has terminals with terminal servers and PC's all connected to a local area network (LAN).

The content of the lecture is similar to many other introductory courses offered in high schools, colleges and universities. The course packet contains more topics than can be presented and evaluated in eleven weeks. Instructors use a designated core set of topics and select options to complete the eleven weeks. In addition, students are encouraged to complete others on their own to pursue their individual computing needs or interests.

Laboratory exercises include topics on operating systems, editing and word processing, spreadsheets, desktop publishing, graphics, BASIC, electronic communications, etc. Two of the exercises, Communications, and Term Paper using a desk top publishing system, deserve special attention for their content and for the results indicated on student evaluations at the end of the term.

Communications Unit

The most popular laboratory assignment is the communications unit using a typical Electronic Bulletin System. A thirty-student class is divided into three groups. Each group is given semiprivate access to a "folder" on the computerized bulletin system. Any user accessing the system can read the messages, but only the members of the group are granted a writing privilege.

The assignment is divided into four parts (milestones) with completion deadlines for each part. The first part assigns each member of the group to write a brief introduction about him/herself and recommend a topic for the group to discuss. The second milestone is to vote and rank three choices from the topics suggested by their group. When group members have tallied the votes, their third assignment is to write a message relating to the agreed-on topic. Ties in voting are interesting. Students are forbidden to get together in person: the issue must be resolved by electronic messages (E-mail). Topics are not restricted to computer subjects and generally are selected from current issues in the media. The last assignment is to write a reply or rebuttal to the first messages.

Most students have no concept of the computer as a communications tool when they begin this assignment. When finished, they have some feeling of how a conference can take place in space and time without the participants ever seeing each other. The advantages and disadvantages described in the text and in lecture become much clearer. There is nothing magic about this assignment being offered in an introductory computer class. Many subjects could be enriched with a unit using these techniques, but applied to the content of the course or subject.

Term Paper Unit

The term paper has also been a revelation. In the Arts and Sciences Division at LCC, all instructors are encouraged, where appropriate, to participate in whatever way they can in the Division's goal of promoting "writing across the curriculum." The computer courses require students to write a term paper on some aspect of computing. This has been a clear last choice in popularity on the course evaluation across all sections. Two years ago the LCC course began a project using desk top publishing methods. The software package used is of a type called a "mark up system" where the user enters commands that are not printed in the output, but control how the document is printed. With most of the popular desk top publishing systems, the user composes on the screen, so that "what you see is what you get" (WYSIWYG). Mark up systems are a little more "techie," but have two advantages: first, the one used at LCC is in the public domain so the price is very affordable; and second, the decisions regarding publishing style of the paper are not in the hands of untrained students. As a result, all papers are formatted consistently, using standard publishing practices.

The required term paper is to be 1000 words in length with three bibliographic references. Four stages or milestones are designated for this project. The first assigns the student to select a topic and practice using the text formatting system. The second milestone is to produce the title page, one paragraph, and one bibliography reference, and is designed to build confidence in the system and to master the mechanical part of the process. Milestone three is to complete 500 words with two references, and milestone four is to complete the paper.

A significant number of our students claim to have never written a term paper before. (Believe it!) While the term paper is not the first choice of the class, it no longer is the last choice. Every term some students now pick it as their 1st choice!!! Obviously, the assignment has implications for students beyond this computer class.

Communications in Management

The most unique part of this course is in the way the class is assigned to the computer. Students are given access to the computer as a member of a group (class). All files are stored on a central file server. The instructor has access to all student files at all times. Students can not access each other's accounts but they can access a common collection of files that is called a class library.

This system allows the instructor to post a message that every student can read each time they access their files. This keeps the students informed about announcements even if they miss a lecture.

Student account names have a common pattern, and every lab assignment has a common unique file name used by all the students. This provides the instructor the opportunity to use a simple command (using the wild card "*") to view or print a listing of the entire class which includes the file name, the date it was created, the size of the file, and how many times the student has accessed that document (presumably to revise or edit it). The contents of each student's file can be displayed or printed in the same way. Using this technique, five or ten minutes before beginning a lecture the teacher can obtain a quick summary or a detailed profile of the progress of the class as a whole, as well as of the individual students. Areas of difficulty or errors can be identified. Lecture time need not be wasted on explaining things students have already mastered.

Students do not need to hand in their assignments. The teacher collects them electronically when they are due. Late papers can be handled as easily by whatever method the teacher prefers. When a student is not clear on a point or process during an individual conference, it very easy for

BEST COPY AVAILABLE

the teacher to copy the student's paper to the teacher's account in order to make modifications, corrections or illustrations to the student's work. The student's original copy remains untouched. The student can then make his or her own corrections, using his or her own judgement, to finish the assignment.

Conclusions:

The computer and these techniques are tools that could be used in any subject area; not just in a computer course. The ideas can be adapted separately or as a package for a variety of systems. Skilled teachers carefully studying the technology will find new ways to extend the learning process. We have been impressed with the results that we have seen. Student success is our goal, and we are using technology to supplement our human skills as teachers who care about our students' success.